

# Appendix D-3:

## Final Design Deliverables

This appendix describes the project deliverables for final design projects. The final design deliverables also are required for restoration projects. This guidance is intended to ensure that project sponsors, evaluators, and SRFB staff have the same expectations for grant agreement deliverables.

All restoration projects that include design elements shall follow four standard project development stages: Conceptual design, preliminary design, final design, and the construction phase. The deliverables for all projects are listed in the table below, with the final design deliverables highlighted. The deliverables are described in Appendices D 1-4.

**If the sponsor intends to deviate from the guidance in this appendix, the sponsor will need to answer specific questions in the salmon project proposal to be reviewed by the SRFB Review Panel during the application process.**

**Project Deliverables**

Project Type	Conceptual design	Preliminary design report	Permit applications	Design review comments	Final design report and drawings	Technical specification	Construction quantities and costs	Bidding documents	Permits	Cultural resources compliance	Control and tenure documentation	As-built
	Conceptual Design	✓										
	Preliminary Design	Application	✓	Optional	Optional					***		
	Final Design	Application	✓	Optional	✓	✓	✓	✓	Optional	***		
	Construction Project	Application	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

\*\* Design-build projects have an abbreviated set of design requirements prior to construction. See Appendix D-4.

\*\*\* Cultural resources compliance may be required if Sponsor is conducting ground disturbing activities during the design phases.

## **Conceptual Design**

For restoration projects, and preliminary and final design projects, the application requirements in the project proposal should comprise an adequate conceptual design. The project proposal, described in Section 4 of *Manual 18, Salmon Recovery Grants*, includes questions detailing the project overview, salmon recovery context, proposed design procedures, alternates considered, plan view drawing, cost estimates, schedule, and other technical information.

## **Preliminary Project Design**

SRFB uses the term “preliminary project design” as either a final deliverable in a preliminary design project or an intermediate deliverable in the design process of a final design or restoration project. Sponsors are required to submit to their SRFB grants manager, the preliminary design deliverables before progressing to the final design and restoration phases. Please see the preceding Appendix D-2: Preliminary Design Deliverables for detailed information on the preliminary design process.

## **Final Project Design**

The final project design will incorporate comments provided by stakeholders, SRFB, and/or permit agencies regarding the preliminary design report and on-site review.

The final project design process converts the preliminary design drawings and report into a stand-alone and comprehensive set of final design drawings (construction drawings) and technical specifications for project construction.

## **Final Design Deliverables**

While the design team may tailor the design process to suit the unique circumstances of each project, the following are required deliverables for final design and restoration projects. These required deliverables must be accepted by your SRFB grants manager before the sponsor moves forward to construction.

- A. Design review comments;
- B. Final design report and drawings;
- C. Technical specifications;
- D. Final construction quantities and costs;
- E. Contract bidding documents and general contract conditions (unless the project will be built by sponsor crew); and

F. Construction permits (optional)

More details on the final design deliverables are provided in the following section.

## A. Design Review Comments

The design review memo may be included in the final design report or submitted as a separate document.

The sponsor shall submit a memo that consolidates stakeholder comments and other considerations received during preliminary design review. The memo should explain how the comments and other feedback have, or have not, been included in the final design. This memo should be distributed to all entities involved with design review. This step may have been completed during the preliminary design phase.

## B. Final Design Report and Drawings

The preliminary design report and drawings should be revised to address the review and permitting comments, as needed. Additional detailed drawings may be needed to clarify the design of specific work items. Final designs should define the project elements considered essential to meet project's goals and objectives and be described in sufficient detail so as to minimize changes made during construction.

## C. Technical Specifications

Technical specifications may be included in the final design report or as a separate document.

All work shown on project drawings should be supported with one or more technical specifications to further describe and/or control the work. The construction contractor should not have uncertainty about project materials, technical requirements, project elevations, permit requirements, or any other elements of the proposed project. Clear and detailed technical specifications reduce on-the-ground adjustments and changes that may deviate from the original project objectives.

## D. Final Construction Quantities and Costs

Construction quantities and costs may be included in the final design report or as a separate document.

SRFB-funded projects require a detailed list of work items and quantities as part of the final project design; the practice of listing a "lump sum" cost for the entire project is not acceptable. A detailed breakdown of work quantities typically includes 10 to 40 separate work items, matched with respective estimated quantities. For projects to be competitively bid, a construction cost estimate should be generated for comparison

with contractor bids; this estimate is traditionally termed “engineer’s estimate” but could be produced by any experienced project designer.

## **E. Contract Bidding Documents and General Contract Conditions**

Contract bidding documents and contract conditions may be included in the final design report or as a separate document.

If the sponsor intends to use his/her own construction crew, this subsection is not applicable; however, the requirements for technical specifications and a detailed list of work items (above) would still apply.

Bidding documents should include: a bid form, definitions, a proposed agreement (to be between the project sponsor and contractor), general conditions, special provisions, technical specifications, and the project drawings (usually bound separately).

Contractor selection for SRFB-funded projects shall be done using good business practices, which could include selective negotiations with known contractors, public advertisement for bidding, or competitive bidding using some combination of proposed price and contractor qualifications. Any contractor selection process needs to be objective, and should be defensible in case of contest by companies that would not be selected for the construction work. Sponsors must follow any applicable state and/or required federal procurement procedures.

## **F. Construction Permits (Optional at the Final Design Phase)**

Sponsors should provide permit applications, or proof of permit receipt (e.g. copies of permits or permit numbers and issue dates) to their SRFB grants manager or in their PRISM progress reports under the Permit tab. This step is optional at the final design phase because, for some sponsors, this step is more practical during the construction phase. Sponsors will be required to meet the deliverables outlined in their project agreements.